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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTIAN BAUER

Appeal 2008-4674
Application 10/767,745
Technology Center 3600

Decided: January 14, 2009

Before: WILLIAM F. PATE, III, JENNIFER D. BAHR and FRED A. SILVERBERG, *Administrative Patent Judges*.

SILVERBERG, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 (2002) from a Final Office Action of claims 1 and 12-32. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM-IN-PART.

THE INVENTION

The Appellant's claimed invention is directed to a plastic retaining member for holding tubular lines on a support and isolating pressure pulses in the lines from the support (Spec. 1, ll. 2-11). Claim 1, reproduced below, is representative of the subject matter on appeal.

> 1. A retaining member for holding and supporting an elongated element from a support, said retaining member comprising:
>
> a base portion attachable to the support; and
>
> a holding portion connected to said base portion and comprising a recess for holding the elongated element therein, said recess comprising:
>
> a tubular portion; and
>
> a plurality of spaced ribs extending radially inwardly from said tubular portion to have different radial heights.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Kropp	US 3,126,184	Mar. 24, 1964
Byerly	US 4,441,677	Apr. 10, 1984
Ruckwardt	US 5,464,179	Nov. 7, 1995

The following rejections are before us for review:

1. Claims 1, 12-27 and 29-32 are rejected under 35 U.S.C. § 103(a) (2004) as being unpatentable over Ruckwardt in view of Byerly.

2. Claim 28 is rejected under 35 U.S.C. § 103(a) (2004) as being unpatentable over Ruckwardt in view of Byerly, and further in view of Kropp.

ISSUES

The issues before us are whether the Appellant has shown that the Examiner erred in rejecting claims 1, 12-27 and 29-32 over Ruckwardt in view of Byerly, and claim 28 over Ruckwardt in view of Byerly, and further in view of Kropp. These issues turn on whether: (1) the Examiner has failed to articulate a reason with rational underpinning to combine the teachings of Ruckwardt in view of Byerly, and further in view of Kropp; (2) the teachings of Ruckwardt, Byerly and Kropp disclose the claimed ribs; and (3) Ruckwardt discloses a further holding portion as called for in claim 29 and a resilient contact element as called for in claims 30 and 32.

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. The Appellant's Specification discloses a retaining member 1 for holding and supporting an elongated element from a support 45, wherein the retaining member 1 comprises a base portion 2 attachable to the support 45 and a holding portion 3 connected to the base 2 portion, the holding portion comprises a recess 23-26 for holding the elongated element therein, and wherein the recess 23-

26 comprises a tubular portion 29-31 and a plurality of spaced ribs 32-34 which extend radially inwardly from the tubular portion 29-31 to have different radial heights (fig. 3).

2. The Appellant's Specification further discloses that the base portion 2 is made of a harder plastic material, and the ribs 32-34 and the tubular portion 29-31 are made of a softer plastic material (Spec. 3, ll. 15-23 and Spec. 6, ll. 14-18).

3. The Appellant's Specification still further discloses that the ribs 32-34 include first ribs 32', 33' having a greater radial height than the second ribs 32", 33"; the first and second ribs 32-34 having widths at the top, wherein the width of the first rib (b in fig. 3) being smaller than the width of the second rib (d in fig. 3) (Spec. 6, ll. 22-27); the first and second ribs being alternatingly arranged in an axial direction of said tubular portion 29-31; and the first and second ribs including a top, wherein the top of the first rib describes a convex curve and the top of the second ribs describe concave curves (fig. 3);

4. The Appellant's Specification still further discloses a resilient contact element 36, 37 on the holding portion 3 adapted to bear against a surface of the support 45 when the base position 2 is attached to the support (Spec. 7, ll. 22-24), and the resilient contact element being made from the same softer plastic material as the first and second ribs 32-34 (Spec. 7, ll. 9-15).

5. The Appellant's Specification still further discloses a further holding portion connected to said base portion 2, the further holding portion comprises a further recess 26 for holding another

elongated element therein, the further recess 26 having a smooth inner surface free of ribs or teeth, wherein the holding portions are positioned on opposite sides of said base portion (Spec. 6, l. 28 and Spec. 8, ll. 3-5).

6. Ruckwardt discloses a retaining member 1 for holding and supporting an elongated element (a tube-shaped part) (col. 1, l. 38 and col. 4, ll. 5-23) from a support; wherein the retaining member 1 comprises a base portion 2 attachable to the support and a holding portion 3 connected to the base 2 portion; the holding portion comprises a recess 17 for holding the elongated element therein; and wherein the recess 17 comprises a tubular portion 16 and a plurality of spaced ribs 18, 19 which extend radially inwardly from the tubular portion 16.

7. Ruckwardt further discloses that the base portion 2 is made of a harder plastic material, and the ribs 18-19 and the tubular portion 16 are made of a softer plastic material (col. 2, ll. 59-62).

8. Byerly discloses first ribs (protuberances) 32 having a greater radial height than second ribs (protuberances) 34, wherein the first ribs 32 and second ribs 34 are alternatingly arranged in a circumferential direction (figs. 4 and 6) to accommodate different diameter wiring conduit (col. 3, ll. 19-35 and 59-62).

9. Kropp discloses three ribs 56; two of the ribs have a curved (concave shaped) recess 57, 58; and the third rib has a v-shaped (convex shaped) projection 59; wherein the ribs engage the outer periphery of a conduit (col. 4, ll. 18-25).

10. The ordinary meaning of the word "rib" includes "an elongated ridge." *Merriam-Webster's Collegiate Dictionary* (10th ed. 1996).

PRINCIPLES OF LAW

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S. Ct. at 1734 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.")

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 1739, and discussed circumstances in which a patent might be

determined to be obvious. In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *KSR,* 127 S. Ct. at 1739 (citing *Graham*, 383 U.S. at 12), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The Court explained:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.*

The Supreme Court stated that there are "[t]hree cases decided after *Graham* [that] illustrate the application of this doctrine." *Id.* at 1739. "In *United States v. Adams*, … [t]he Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result." *Id.* at 1739-40. "*Sakraida and Anderson's-Black Rock* are illustrative – a court must ask whether the

improvement is more than the predictable use of prior art elements according to their established function." *Id.* at 1740.

The Supreme Court stated that "[f]ollowing these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." *Id.* The Court explained:

> Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

Id. at 1740-41. The Court noted that "[t]o facilitate review, this analysis should be made explicit." *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.*

The Federal Circuit recently concluded that it would have been obvious to combine (1) a mechanical device for actuating a phonograph to play back sounds associated with a letter in a word on a puzzle piece with (2) an electronic, processor-driven device capable of playing the sound

associated with a first letter of a word in a book. *Leapfrog Ent., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) ("[a]ccommodating a prior art mechanical device that accomplishes [a desired] goal to modern electronics would have been reasonably obvious to one of ordinary skill in designing children's learning devices"). In reaching that conclusion, the Federal Circuit recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Id.* at 1161 (citing *KSR*, 127 S. Ct. 1727, 1739 ("The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.")). The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id.* at 1162 (citing *KSR*, 127 S. Ct. at 1740-41).

When construing claim terminology in the United States Patent and Trademark Office, claims are to be given their broadest reasonable interpretation consistent with the specification, reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

ANALYSIS

Ruckwardt discloses a retaining member 1 for holding and supporting an elongated element (a tube-shaped part) (col. 1, l. 38 and col. 4, ll. 5-23)

from a support; wherein the retaining member 1 comprises a base portion 2 attachable to the support and a holding portion 3 connected to the base portion 2; the holding portion comprises a recess 17 for holding the elongated element therein; wherein the recess 17 comprises a tubular portion 16 and a plurality of spaced ribs 18, 19 that extend radially inwardly from the tubular portion 16 (Fact 6). The base portion 2 is made of a harder plastic material; and the ribs 18-19 and the tubular portion 16 are made of a softer plastic material (col. 2, ll. 59-62) (Fact 7). Ruckwardt differs from the claimed subject matter in that it does not disclose the particular shape of the ribs, the number of ribs and the particular arrangement of the ribs. Byerly discloses first ribs 32 having a greater radial height than second ribs 34 to accommodate different diameter wiring conduit (col. 3, ll. 19-23 and 59-62), wherein the first ribs 32 and second ribs 34 are alternating arranged in a circumferential direction (figs. 4 and 6) (Fact 8). Kropp discloses three ribs 56; two of the ribs have a curved (concave shaped) recess 57, 58; and the third rib has a v-shaped (convex shaped) projection 59; wherein the ribs engage the outer periphery of a conduit (col. 4, ll. 18-25) (Fact 9). We conclude that to combine the teachings of Ruckwardt and Byerly (claims 1, 12-27 and 31), and in addition Kropp (claim 28), as set forth by the Examiner (Ans. 3-5), would have been obvious at the time the invention was made to a person having ordinary skill in the art.

Appellant argues that there is no motivation to combine Ruckwardt and Byerly, as Byerly's arrangement is intended to be wrapped around a corrugated tube with two distinct diameters, while Ruckwardt's arrangement is directed to supporting a single tube-shaped part which is pressed into place (Br. 5-6). We agree with the Examiner's analysis (Ans. 5-6) and find

since both Ruckwardt and Byerly teach holding a tube in a retaining member, the Examiner has articulated a reason with rational underpinning to combine the teachings of Ruckwardt and Byerly.

Appellant further argues that there is no disclosure in either Ruckwardt or Byerly to suggest to a person having ordinary skill in the art that the teachings of Byerly could be transferred to Ruckwardt (Br. 7). In particular, Appellant argues that it is hardly likely that a person having ordinary skill in the art would consider increasing the number of projections in Ruckwardt and arranging the projections in a pattern as called for in the claims (Br. 7). Both Ruckwardt and Byerly teach using projections to support a tube in a retaining member. Byerly discloses that the different height ribs alternating arranged in a circumferential direction accommodate different diameter wiring conduit (Fact 8). Therefore, a person having ordinary skill in the art desiring to accommodate different diameter tubing in Ruckwardt would look to the teachings of Byerly. In *KSR* the Supreme Court held that if a technique has been used to improve one device and a person of ordinary skill in the art would recognize that it would predictably improve similar devices in the same way, using the technique is obvious. *See KSR* at 1740.

Appellant still further argues that since Ruckwardt has gone to the trouble of disclosing elements 18 as not being ribs, it is improper to treat them as being ribs (Br. 9-10). The ordinary meaning of the word "rib" includes "an elongated ridge." *Merriam-Webster's Collegiate Dictionary* (10th ed. 1996) (Fact 10). While elements 18 in Ruckwardt are denoted as being a thickening or tab portion, they are also shown in figure 3 as elongated ridges. Therefore, we find that the elements 18 in Ruckwardt are

considered ribs regardless of the identifier that Ruckwardt uses to denote the elements 18. *See In re Am. Acad. of Sci. Tech. Ctr.* at 1364.

Appellant still further argues that the Examiner misinterpreted Kropp's invention as disclosing ribs 56, 57 with convex and concave curves, as ribs 56, 57 are parts of a circular recess. Kropp refers in column 3, ll. 18-23 to three ribs 56, not a curved recess. Further, in Kropp, figure 8 shows three elements labeled as 56. In Kropp, two of the ribs have a curved (concave shaped) recess 57, 58; and the third rib has a v-shaped (convex shaped) projection 59, wherein the ribs engage the outer periphery of a conduit (Fact 9). Accordingly, we agree with the Examiner's analysis (Ans. 5) and find that Kropp discloses ribs having convex and concave curves.

Appellant still further argues that the prior art does not disclose the limitations of claim 29 (a further holding portion comprising a further recess, wherein the further recess has a smooth inner surface free of ribs or teeth), claim 30 (a resilient contact element adapted to bear against a surface of the support, wherein the resilient contact element being made of the same plastic material as the first and second ribs), and claim 32 (a resilient contact element that bears against the support and spaces the base portion from the support, wherein the resilient contact element being made of softer plastic material) (Br. 14-15). We agree with Appellant that the disclosures of Ruckwardt, Byerly and Kropp do not show a further holding portion comprising a further recess, wherein the further recess has a smooth inner surface free of ribs or teeth as called for in claim 29; a resilient contact element adapted to bear against a surface of the support, wherein the resilient contact element being made of the same plastic material as the first and second ribs as called for in claim 30; and a resilient contact element that

bears against the support and spaces the base portion from the support, wherein the resilient contact element being made of softer plastic material as called for in claim 32. We find that the Examiner has not expressly discussed the argued limitations of claim 29. Regarding claims 30 and 32, we do not agree with the Examiner's analysis (Ans. 5) that in Ruckwardt, element 20 is a resilient contact element as Ruckwardt discloses that element 20 is an aperture in element 2, wherein element 2 is formed of hard plastic (col. 2, l. 59-60 and col. 4, ll. 25-26). Further, even if we considered the top edge of aperture 20 in Ruckwardt to be a contact element, we would still not agree with the Examiner's analysis (Ans. 5) that it would have been obvious to make the contact element (top edge of 20) out of the same plastic (softer plastic) as the first and second ribs since the top edge is part of a one piece hard plastic first component (col. 2, ll. 59-60). Accordingly, we conclude that the Examiner erred in rejecting claims 29, 30 and 32 over Ruckwardt in view of Byerly.

CONCLUSION OF LAW

We conclude that the Appellant has not shown that the Examiner erred in rejecting claims 1, 12-27 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Ruckwardt in view of Byerly; and claim 28 under 35 U.S.C. § 103(a) as being unpatentable over Ruckwardt in view of Byerly, as the Examiner has articulated a reason with rational underpinning to combine the teachings of Ruckwardt in view of Byerly and further in view of Kropp, and Ruckwardt discloses a plurality of ribs as called for in claims 1 and 30. We conclude that the Appellant has shown that the Examiner erred in

rejecting claims 29, 30 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Ruckwardt in view of Byerly.

DECISION

The decision of the Examiner to reject claims 1, 12-27 and 31 over Ruckwardt in view of Byerly, and claim 28 over Ruckwardt in view of Byerly, and further in view of Kropp is affirmed. The decision of the Examiner to reject claims 29, 30 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Ruckwardt in view of Byerly is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2008).

AFFIRMED-IN-PART

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